

REMARKS

Claims 2, 5-10, 12 and 16-17 have been amended and claim 1 has been cancelled through this Amendment and Response. Thus, claims 2-17 are pending in this application. Each of the pending claims is believed to define an invention that is allowable over the cited references. Based on the foregoing amendment and the following remarks, it is respectfully submitted that the instant application is in condition for allowance. Prompt reconsideration and withdrawal of the rejections is earnestly requested.

1. On pages 2-3 of the Office Action, the drawings are objected to under 37 C.F.R. § 1.83(a) for not showing every feature of the claimed invention. Specifically, it is stated that the output terminal connected between the amplifying element and the current sensor, as in claim 6, is not shown in the drawings. A Replacement Sheet including a new FIG. 2, including a dotted line depicting an alternative embodiment in accordance to claim 6, is accordingly submitted. The drawing is fully supported by the description on paragraph [0033] of the published application (U.S. Pub. No. 2006/0012451). No new matter is added. Reconsideration of the drawings is respectfully requested.

2. On pages 3-4, several claims are objected to for various informalities. Appropriate amendments have been made to overcome these objections. Specifically:

- claims 5 and 6 have been amended to recite “a node”;

- claims 7-8, 10, 12 and 17 have been amended to delete the recitation of the phrase
“preferably a MOSFET”;
- claim 9 has been amended to establish proper antecedent basis for “the second transistor”;
and
- the claims have been amended to establish proper antecedent basis for “the comparator”
recited in claims 12-13.

Reconsideration of the claims and withdrawal of the objections is respectfully requested.

3. On pages 2-5 of the Office Action, claims 1-3, 6, 10 and 16 are rejected under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent Application No. 6,750,638 to Gang (hereinafter “Gang”). These rejections are respectfully traversed.

Claim 1 has been herein cancelled and its features have been added to claim 2. It is respectfully submitted that Gang does not anticipate claim 2 for at least three reasons as follows.

First, Gang does not teach or suggest “a **current sensor** connected in series between said current amplify element and a first supply voltage,” as recited in the amended claim 2 (emphasis added). In rejecting claim 2, the Office Action aligns the claimed “current sensor” with Gang’s teachings in FIG. 2: 23, R1. However, element 23 of Gang is a voltage-to-current converter 23 and R1 is a register. See, Gang, Col. 4, lines 17-19. The voltage-to-current converter 23 in series with register R1 is not a current sensor. Thus, Gang does not teach the claimed “current sensor,” as recited in claim 2.

Second, claim 2 has been amended to recite “a **current amplifying element** having a high-impedance control terminal connected to said node” (emphasis added). Gang fails to teach or suggest this feature. Gang merely includes two different amplifiers 24, 25, both of which are voltage amplifiers. Thus, Gang does not teach or suggest the claimed “current amplifying element,” as recited in the amended claim 2. Accordingly, it is respectfully submitted that claim 2 is allowable over Gang.

Claims 3, 6, 10 and 16 are dependent, directly or indirectly, on claim 2 and are submitted as allowable for at least the same reasons.

4. On pages 5-6 of the Office Action, claims 1-2, 5, 7-8 and 16 are rejected under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent Application No. 5,289,109 to Summe (hereinafter “Summe”). These rejections are respectfully traversed.

Summe fails to anticipate independent claim 2 for at least two reasons. First, claim 2, as amended, recites “a feedback capacitor, having a first terminal connected to input terminal and having a second terminal connected to **a high-impedance node**” (emphasis added). In rejecting claim 2, the Office Action aligns the claimed “feedback capacitor” with Summe’s teachings of a capacitor 85 in the FIG. and aligns the claimed “high-impedance node” with Summe’s node 26. The node 26 of Summe is the emitter of the transistor 70, which thus maintains a constant voltage (low impedance). See Summe, FIG. and Col. 2, lines 45-47. There is no indication or suggestion in Summe that the node 26 is a high impedance node. Thus, node 26 is not a “high impedance node,” as recited in claim 2.

Second, claim 2 also recites “a **feedback capacitor**, having a first terminal **connected to input terminal** and having a second terminal connected to a high-impedance node” (emphasis added). In rejecting claim 1, the Office Action aligns the claimed “feedback capacitor” with Summe’s teachings of a capacitor 85. However, the capacitor 85 of Summe is not a feedback capacitor. Further, neither terminal of the capacitor 85 is connected to an input terminal. The node 32 of Summe is an output terminal driven by the transistor 24. See Summe, Col. 2, lines 4-7. Thus, Summe fails to teach the claimed “a feedback capacitor, having a first terminal connected to input terminal and having a second terminal connected to a high-impedance node,” as recited in claim 2 (emphasis added). Accordingly, it is respectfully submitted that claim 2 is allowable over Summe.

Claims 5, 7-8 and 16 are dependent, directly or indirectly, on claim 2 and are submitted as allowable for at least the same reasons.

5. On pages 7-8 of the Office Action, claims 1-2, 10, 12 and 16 are rejected under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent Application No. 5,637,992 to Edwards (hereinafter “Edwards”). These rejections are respectfully traversed.

Edwards fails to anticipate independent claim 2 for at least three reasons. First, claim 2, as amended, recites “a **feedback capacitor**, having a first terminal connected to input terminal and having a second terminal connected to **a high-impedance node**” (emphasis added). In rejecting claim 2, the Office Action aligns the claimed feedback capacitor with Edward’s teachings of a capacitor 44, as depicted in FIG. 2. Assuming that capacitor 44 is a feedback capacitor, neither end of the capacitor 44 is connected to a high-impedance node. Specifically, one end of the capacitor 44

is coupled to the resistor 45, which the Office Action aligns with the claimed "input terminal." The other end of the capacitor 44 is coupled to the gate of the transistor 40, which is also coupled to the output of the amplifier 46. The output of an operational amplifier is well known to be low impedance, for example see U.S. Patent No. 4,223,275, column 1, lines 10-15. Thus, the capacitor 44 is coupled to low impedance nodes.

Additionally, in the office communication the Examiner refers to Edwards 44 – 45 as an input terminal. Applicant respectfully submits that Edwards 44 – 45 could not be considered as an input terminal because if capacitor 44 is considered as feedback capacitor than the feedback must include resistor 45 (otherwise there is no feedback at all) and thus, the input terminal could be must be (45,48) and not (44,45) which is an internal node of the circuit.

With respect to the Examiner rejection of claims 10, 12 and 16, theses claims depend on amended claim 2 which should now be allowable independent claim and therefore Applicant respectfully submits that the objection to these claims should be withdrawn.

Claim rejections under 35 U.S.C. § 103(a)

In the office communication the Examiner stated that claims 7-9 and 11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Edwards (US 5,637,992) in view of Sedra

According to MPEP 2143.03 To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA

1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

As shown above Edwards does not show the limitations of claim 2. For instance Edwards does not show the limitation of "having a second terminal connected to a high impedance node". Additionally Sedra does not teach or suggest these limitations. Thus, Edwards or Sedra alone, or in combination do not teach the limitations of the claim as required by MPEP 2143.03. Claim 7 (which depends on claim 4 that depends on claim 3 that depends on claim 2) can not be considered as unpatentable.

The same applies for claim 8, 9 and 11 which all are dependent on claim 2.

The patentability of dependent claims 7-9 and 11 follow at least for the reason of being dependent on an allowable independent claim 2.

Applicant thanks the Examiner for explicitly pointing out that claims 4, 13-15 and 17 contain allowable subject matter.


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In view of the above, applicant believes the pending application is in condition for allowance.

Respectfully submitted,

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